

Art Unit: 2169

EXAMINER'S AMENDMENT

- A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/14/2008 has been entered.

- An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

- Authorization for this examiner's amendment was given in a telephone interview with applicant's representative, MARK J. SPOLYAR, on 01/26/2009.

AMENDMENT TO THE CLAIMS

The listing of claims as below replaces listing in the CLAIMS that was filed by applicant on 11/14/2008.

1. - 32. (Canceled)

33. (currently amended) An apparatus, comprising:

an interface operative to communicate with client nodes and at least one other distributed data repository node over a computer network, and;

a memory that stores mapping module comprising a content map stored in a memory and at least one index map, the content map comprising one or more content map entries, each content map entry

Art Unit: 2169

comprising a unique identifier and one or more record chunks associated with the unique identifier, each of the one or more record chunks comprising a binary data object, ~~and at least one index map stored in the memory,~~ the at least one index map comprising one or more index map entries, each index map entry comprising a unique identifier corresponding to the one or more record chunks maintained in each content map entry of the content map and one or more record attribute values associated with corresponding ones of the binary data objects of the one or more record chunks maintained in each content map entry;

~~wherein the a mapping module that is operative to:~~

~~receives~~ receive a request to insert a record from a first client node;

~~generates~~ generate a unique identifier in response to the ~~record insertion~~ received request;

~~transmits~~ transmit the generated unique identifier to the first client node;

~~receives~~ receive an insertion message including the transmitted unique identifier and at least one record attribute value of the record;

~~stores~~ store the at least one record attribute value ~~associated with~~ in the received insertion message in ~~a corresponding~~ the stored at least one index map at an index map entry in association with the unique identifier in the received insertion message;

~~receives~~ receive record chunks of a data stream corresponding to the unique identifier in the received insertion message from the first client node;

~~stores~~ store the received record chunks in the stored content map at a content map entry in association with the unique identifier in the received insertion message;

~~receives~~ receive a query from a second client node;

~~accesses~~ access one or more of the at least one index map to identify a unique identifier corresponding to one or more record chunks that satisfies the query;

~~provides~~ provide, to the second client node, the record chunks associated with the identified unique identifier; and

~~streams~~ stream additional record chunks associated with the identified unique identifier to the second client node as they are received from ~~the first~~ a third client node;

synchronizes record attribute values in the at least one index map with record attribute values of at least one index map maintained by the at least one distributed data repository node.

34. (Canceled)

Art Unit: 2169

35. (Currently Amended) The ~~data repository node apparatus~~ of claim ~~34~~ 33 wherein the mapping module is further ~~operative to~~ transmits the received record chunks to the at least one ~~other~~ distributed data repository node for replication.

36. (Currently amended) A distributed data repository system, comprising:

at least two distributed repository nodes, each distributed repository node comprising:

a memory that stores a content map and at least one index map ~~stored in a memory~~, the content map containing at least one message payload stored in association with a message payload identifier, wherein the at least one message payload comprises a binary data object, and

at least one index map stored in the memory, the at least one index map containing at least one content attribute value associated with a corresponding binary data object and a corresponding message payload identifier;

wherein each distributed repository node ~~is operative to~~ further comprises a mapping module that:

receives ~~receive~~ a request to insert a record from a first client node;

generates ~~generate~~ a first unique message payload identifier in response to the ~~record insertion~~ received request;

transmits ~~transmit~~ the generated first unique message payload identifier to the first client node;

receives ~~receive~~, from the first client node, an insertion message including the transmitted first unique message payload identifier and at least one content attribute value of the record;

stores ~~store~~ the at least one record attribute value ~~associated with~~ in the received insertion message in ~~a corresponding~~ the at least one index map index map at an entry in association with the first unique message payload identifier in the received insertion message;

receives ~~receive~~, from the first client node, message payloads of a data stream corresponding to the first unique message payload identifier in the received insertion message ~~from the client node~~;

stores ~~store~~ the record chunks received message payloads in the content map at an entry in association with the first unique message payload identifier in the received insertion message;

Art Unit: 2169

receives ~~receive~~ a query from a second client node;

accesses ~~access~~ one or more of the stored at least one index map to identify a unique message payload identifier corresponding to one or more message payloads that satisfies the query;

provides ~~provide~~, to the second client node, the one or more message payloads associated with the identified unique message payload identifier;

streams ~~stream~~ additional message payloads associated with the identified unique message payload identifier to the second client node as they are received from a third client node;

synchronizes ~~synchronize~~ the content attribute values in the at least one index map with content attribute values of at least one index map maintained by the at least one other distributed data repository nodes.

37. (Currently Amended) The distributed data repository system of claim 36 wherein the mapping module of each distributed data repository node is further ~~operative to transmit~~ transmits the received message payloads to the at least one other ~~data~~ distributed repository node for replication.

38. (Currently Amended) The distributed data repository system of claim 36 wherein the mapping module of each distributed data repository node is further ~~operative to request and receive~~ requests and receives from at least one other distributed data repository node message payloads that match a query received from a client node.

39. (Currently Amended) The apparatus of claim 33 wherein ~~each~~ the at least one distributed data repository node is further operative to transmit notifications to other distributed data repository node to reserve ~~the~~ an unique identifier.

40. (Currently Amended) The distributed data repository system of claim 36 wherein each distributed ~~data~~ repository node is further operative to transmit notifications to other distributed data repository node to reserve ~~the first~~ an unique message payload identifier.

Art Unit: 2169

41. (Previously Presented) The apparatus of claim 33 wherein the binary data objects are Binary Large Objects (BLOBs).

42. (Previously Presented) The apparatus of claim 33 wherein the binary data objects are media content objects.

43. (Currently Amended) The distributed data repository system of claim 36 wherein the identified unique message payload identifier is the first unique message payload identifier and the third client node is the first client node.

REASONS FOR ALLOWANCE

- The following is an examiner's statement of reasons for allowance:

Prior arts of record do not render obvious, nor anticipate the combination of claimed elements including the claimed limitations "*streams additional record chunks associated with the identified unique identifier to the second client node as they are received from a third client node*" and "*synchronizes record attribute values in the at least one index map with record attribute values of at least one index map maintained by the at least one distributed data repository node*" as recited in claims 33 and 36. Thus, claims 33 and 36 are allowed. Dependent claims 35, 37-43 are allowed at least by virtue of their dependencies from claim 20 and 35.

- Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2169

Point of Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES K. TRUJILLO can be reached on 571-272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG Q. PHAM/
Primary Examiner, Art Unit 2169

HUNG Q. PHAM
Primary Examiner
Art Unit 2169

January 30, 2009